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AMENDMENTS TO THE SPECIFICATION

[0001] This is a continuation application of copending Application Serial No. 09/727,287 entitled METHOD AND APPARATUS FOR TREATMENT OF VIRAL DISEASES filed on November 29, 2000, now U.S. Patent No. 6,618,625 issued on September 9, 2003 which application is hereby incorporated by reference in its entirety.

[0005] Disease states are also caused by a variety of other viruses. Viral hepatitis is a serious liver disease of particular concern for healthcare professionals. One form of hepatitis, hepatitis C, is considered responsible for approximately 10,000 deaths per year. The human papilloma virus ~~papillomavirus~~ (HPV) is responsible for most of the cervical cancers worldwide, genital warts and the formation of verrucae, warts that form on the soles of the feet. HPV has also been associated with several oral cancers. In addition, the HIV virus has killed more than 19 million people and infected 34 million more, causing an epidemic that will continue to devastate communities around the world.

[0046] Turning now to FIGURE 4, there is illustrated another embodiment of the electrical stimulation device 10. The device 10 includes a housing 12 and concentric electrodes 18a and 18b at the top end of the device 10. Here, the electrodes 18a and 18b are circular, and the center electrode 18b forms a circular pad rather than a ring. This embodiment is adapted for oral application, and advantageously measures about 0.5 to 0.75 inches in diameter with a length of about 2 inches. This is about the same size and shape of a lipstick or lip balm applicator, and thus is very convenient for carrying in a pocket or purse. In this embodiment, the display 25 may be provided on the bottom flat surface opposite the electrode surface. A cap 11-22 is also preferably provided for the embodiments of FIGURES 1, 3, and 4. This cap 11-22 fits over the top end of the device 10 where the electrodes 18a and 18b are located. The cap 11-22 acts to protect the electrodes 18a and 18b after cleaning with alcohol or hydrogen peroxide and not in use.

[0047] In FIGURES 5A, 5B, 6A and 6B there is shown still other embodiments of the electrical stimulation device 10 of the present invention. In these embodiments, the ~~[The]~~ device 10 includes a disposable electrode cartridge 24 which includes the battery and concentric electrodes 18a and 18b located on the contact head 26 of the device 10, which is located at the distal end 30 of the device 10. The contact head 26 can be flat (FIGURES 5A and 5B) or hemispherical in shape (FIGURES 6A and 6B). The disposable electrode cartridge 24 snaps into

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the housing 12, but can be easily removed for disposal. As shown in FIGURE 5C, the concentric electrodes 18a, 18b, can be circular; alternatively, as shown in FIGURE 6C, the electrodes 18a, 18b can be positioned side-by-side, each electrode comprising approximately half of a hemispherical surface, separated by a strip of insulating material ~~27~~ 26 along an equatorial line of the hemisphere. This embodiment is advantageous in that the electrodes can be removed and replaced without discarding the entire unit 10.

[0049] This form of treatment protocol is illustrated in FIGURE 7, and is initiated at start block ~~31~~ 30. At block 32, an electrical signal pulse is applied. At decision block 34, it is determined whether or not the pulse just applied is the last pulse of the treatment. If not, the system moves to block 36, where the device is configured to output a pulse having characteristics different from the previous pulse. Looping back to block 32, the pulse having the new desired characteristics is applied. This process continues until the last pulse of the treatment is applied, and the treatment then ends at stop block 38.

Example 3 - Human Papilloma ~~Papiloma~~ Virus

[0077] A female subject, date of birth 6/21/51, had a history of lesions appearing on the lower part of her legs, generally on the front aspect between the knee and the ankle. An outbreak usually consisted of 2-3 to six or more lesions, and tended to occur during times of stress. The lesions would become larger over a period of five to seven days, and would dry up and disappear two to three weeks after their appearance. The lesions were diagnosed as being caused by Human Papilloma ~~Papiloma~~ Virus, for which oral medication and topical cream was prescribed. These treatments were not successful.